

Sheet 1 of 6SUBSTITUTE FORM PTO-1449  
(MODIFIED)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE  
STATEMENT BY APPLICANT  
(Use several sheets if necessary)

(37 C.F.R. § 1.98(b))

Attorney Docket No.	06132/075002
Serial No.	10/715,868
Applicant	Juan Arroyo et al.
Filing Date	November 17, 2003
Group	1648
IDS Filed	October 11, 2007

## U.S. PATENT DOCUMENTS

Examiner's Initials	Document Number	Publication Date/Filing Date	Patentee or Applicant
	6,171,854	Jan. 9, 2001	Galler and Freire
	6,962,708	Nov. 8, 2005	Chambers et al.
	2003/0044773	Mar. 6, 2003	Kleanthous et al.
	2003/0194801	Oct. 16, 2003	Bonaldo et al.
	2004/0223979	Nov. 11, 2004	Chambers et al.
	2004/0259224	Dec. 23, 2004	Guirakhoo
	2005/0002968	Jan. 6, 2005	Monath et al.
	2007/184469	Aug. 9, 2007	Depres and Catteau
	08/807,445	Feb. 28, 1997	Chambers et al.
	09/007,664	Jan. 15, 1998	Chambers et al.

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Examiner's Initials	Document Number	Publication Date	Country or Patent Office	Translation (Yes/No)
	WO 02/072835	Sept. 19, 2002	W.I.P.O.	
	WO 02/102828	Dec. 27, 2002	W.I.P.O.	
	WO 03/101397	Dec. 11, 2003	W.I.P.O.	
	WO 03/103571	Dec. 18, 2003	W.I.P.O.	
	WO 04/045529	Jun. 3, 2004	W.I.P.O.	
	WO 05/040390	May 6, 2005	W.I.P.O.	No
	WO 05/049815	Jun. 2, 2005	W.I.P.O.	
	WO 05/082020	Sept. 9, 2005	W.I.P.O.	

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FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION				
	WO 06/044857	Apr. 27, 2006	W.I.P.O.	
	WO 06/116182	Nov. 2, 2006	W.I.P.O.	
	WO 07/051267	May 10, 2007	W.I.P.O.	

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)	
	Bancroft, "Current Status of Dengue Vaccines and Prospects for the Future," <i>Puerto Rico Health Sci. J.</i> 6(1):23-26, 1987. Abstract only.
	Barrett, "Current Status of Flavivirus Vaccines," <i>Ann. N. Y. Acad. Sci.</i> 951:262-271, 2001.
	Bonaldo et al., "The Yellow Fever 17D Vaccine Virus as a Vector for the Expression of Foreign Proteins: Development of New Live Flavivirus Vaccines," <i>Mem. Inst. Oswaldo Cruz, Rio de Janeiro</i> 95(Suppl. 1):215-223, 2000.
	Bonaldo et al., "Surface Expression of an Immunodominant Malaria Protein B Cell Epitope by Yellow Fever Virus," <i>J. Mol. Biol.</i> 315:873-885, 2002.
	Bonaldo et al., "Attenuation of Recombinant Yellow Fever 17D Viruses Expressing Foreign Protein Epitopes at the Surface," <i>J. Virology</i> 79:8602-8613, 2005.
	Bonaldo et al., "Expression of Foreign Protein Epitopes at the Surface of Recombinant Yellow Fever 17D Viruses Based on Three-Dimensional Modeling of Its Envelope Protein," <i>Cell Biochem. Biophys.</i> 44:313-324, 2006.
	Bray et al., "Genetic Determinants Responsible for Acquisition of Dengue Type 2 Virus Mouse Neurovirulence," <i>J. Virology</i> 72:1647-1651, 1998.
	Cardosa, "Dengue Vaccine Design: Issues and Challenges," <i>British Med. Bull.</i> 54(2):395-405, 1998.
	Carle et al., "Experiments on the Transmission of an Ictero-genic Agent in Yellow Fever Vaccine to Horses and Swine," <i>J. Bacteriol.</i> 48:45-69, 1944.
	Chen et al., "Generation and Characterization of Organ-Tropism Mutants of Japanese Encephalitis Virus <i>In Vivo</i> and <i>In Vitro</i> ," <i>Virology</i> 223:79-88, 1996.
	Dermime et al., "Vaccine and Antibody-Directed T Cell Tumour Immunotherapy," <i>Biochim. Biophys. Acta</i> 1704:11-35, 2004.
	De Vries et al., "Genetic Manipulation of Equine Arteritis Virus Using Full-Length cDNA Clones: Separation of Overlapping Genes and Expression of a Foreign Epitope," <i>Virology</i> 270:84-97, 2000.

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(37 C.F.R. § 1.98(b))			

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)	
	dos Santos et al., "Determinants in the Envelope E Protein and Viral RNA Helicase NS3 that Influence the Induction of Apoptosis in Response to Infection with Dengue Type 1 Virus," <i>Virology</i> 274:292-308, 2000.
	Edelman et al., "Phase I Trial of 16 Formulation of a Tetravalent Live-Attenuated Dengue Vaccine," <i>Am. J. Trop. Med. Hyg.</i> 69(Suppl 6):48-60, 2003.
	EZ::TN <sup>TM</sup> Insertion System (Epicentre).
	Goryshin and Reznikoff, "Tn5 <i>In Vitro</i> Transposition," <i>J. Biol. Chem.</i> 273:7367-7374, 1998.
	Guirakhoo et al., "Recombinant Chimeric Yellow Fever-Dengue Type 2 Virus is Immunogenic and Protective in Nonhuman Primates," <i>J. Virology</i> 74:5477-5485, 2000.
	Guirakhoo et al., "Construction, Viremia, and Immunogenicity Profile of Recombinant Chimeric Yellow Fever/Dengue Viruses in Nonhuman Primates," Program and Abstracts of the 49 <sup>th</sup> Annual Meeting of the American Society of Tropical Medicine and Hygiene, Houston, Texas, October 29-November 2, 2000, Supplement to <i>Am. J. Trop. Med. Hyg.</i> , 313, Abstract.
	Guirakhoo et al., "Construction, Viremia, and Immunogenicity Profile of Recombinant Chimeric Yellow Fever/Dengue Viruses in Nonhuman Primates," Program and Abstracts of the 49 <sup>th</sup> Annual Meeting of the American Society of Tropical Medicine and Hygiene, Houston, Texas, October 29-November 2, 2000, Supplement to <i>Am. J. Trop. Med. Hyg.</i> , 1722, Abstract.
	Guirakhoo et al., "Development of ChimeriVax <sup>TM</sup> -Yellow Fever Based Vaccines for Dengue and Japanese Encephalitis Viruses," 6 <sup>th</sup> International Symposium on Positive Strand RNA Viruses, Paris, May 28-June 2, 2001, Abstract.
	Guirakhoo et al., "Viremia and Immunogenicity in Nonhuman Primates of a Tetravalent Yellow Fever-Dengue Chimeric Vaccine: Genetic Reconstructions, Dose Adjustment, and Antibody Responses Against Wild-Type Dengue Virus Isolates," <i>Virology</i> 298:146-159, 2002.
	Guirakhoo et al., "Safety and Efficacy of Chimeric Yellow Fever-Dengue Virus Tetravalent Vaccine Formulations in Nonhuman Primates," <i>J. Virology</i> 78(9):4761-4775, 2004.
	Guirakhoo et al., "A Single Amino Acid Substitution in the Envelope Protein of Chimeric Yellow Fever-Dengue 1 Vaccine Virus Reduces Neurovirulence for Suckling Mice and Viremia/Viscerotropism for Monkeys," <i>J. Virology</i> 78(18):9998-10008, 2004.
	Guirakhoo et al., "Live Attenuated Chimeric Yellow Fever Dengue Type 2 (ChimeriVax <sup>TM</sup> -DEN2) Vaccine: Phase I Clinical Trial for Safety and Immunogenicity," <i>Human Vaccines</i> 2(2):60-67, 2006.
	Guy et al., "Evaluation by Flow Cytometry of Antibody-Dependent Enhancement (ADE) of Dengue Infection by Sera from Thai Children Immunized with a Live-Attenuated Tetravalent Dengue Vaccine," <i>Vaccine</i> 22:3563-3574, 2004.
	Halstead and Deen, "Rapid Review: The Future of Dengue Vaccines," <i>The Lancet</i> 360:1243-1245, 2002.

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	Hurrelbrink and McMinn, "Attenuation of Murray Valley Encephalitis Virus by Site-Directed Mutagenesis of the Hinge and Putative Receptor-Binding Regions of the Envelope Protein," <i>J. Virology</i> 75:7692-7702, 2001.
	Innis and Eckels, "Progress in Development of a Live-Attenuated, Tetravalent Dengue Virus Vaccine by the United States Army Medical Research and Materiel Command," <i>Am. J. Trop. Med. Hyg.</i> 69(Suppl 6):1-4, 2003.
	Kanesa-athan et al., "Safety and Immunogenicity of Attenuated Dengue Virus Vaccines (Aventis Pasteur) in Human Volunteers," <i>Vaccine</i> 19:3179-3188, 2001.
	Kolaskar and Kulkrani-Kale, "Prediction of Three-Dimensional Structure and Mapping of Conformational Epitopes of Envelope Glycoprotein of Japanese Encephalitis Virus," <i>Virology</i> 261:31-42, 1999.
	Kurane et al., "Immunity and Immunopathology in Dengue Virus Infections," <i>Sem. Immunol.</i> 4(2):121-127, 1992. Abstract only.
	Lai and Monath, "Chimeric Flaviviruses: Novel Vaccines Against Dengue Fever, Tick-Borne Encephalitis, and Japanese Encephalitis," <i>Adv. Virus Res.</i> 61:469-509, 2003.
	Laoprasopwattana et al., "Dengue Virus (DV) Enhancing Antibody Activity In Preillness Plasma does not Predict Subsequent Disease Severity or Viremia in Secondary DV Infection," <i>J. Infect. Dis.</i> 192:510-519, 2005. Erratum in <i>J. Infect. Dis.</i> 192:1863, 2005.
	Lee et al., "Changes in the Dengue Virus Major Envelope Protein on Passaging and Their Localization on the Three-Dimensional Structure of the Protein," <i>Virology</i> 232:281-290, 1997.
	Li et al., "Chimeric Influenza Virus Induces Neutralizing Antibodies and Cytotoxic T Cells Against Human Immunodeficiency Virus Type 1," <i>J. Virology</i> 67(11):6659-6666, 1993.
	McAllister et al., "Recombinant Yellow Fever Viruses are Effective Therapeutic Vaccines for Treatment of Murine Experimental Solid Tumors and Pulmonary Metastases," <i>J. Virology</i> 74(19):9197-9205, 2000.
	McMinn, "The Molecular Basis of Virulence of the Encephalitogenic Flaviviruses," <i>J. Gen. Virology</i> 78:2711-2722, 1997.
	Modis et al., "A Ligand-Binding Pocket in the Dengue Virus Envelope Glycoprotein," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 100(12):6986-6991, 2003.
	Monath et al., "Recombinant, Chimeric Live, Attenuated Vaccine (ChimerVax™) Incorporating the Envelope Genes of Japanese Encephalitis (SA14-14-2) Virus and the Capsid and Nonstructural Genes of Yellow Fever (17D) Virus is Safe, Immunogenic and Protective in Non-Human Primates," <i>Vaccine</i> 17:1869-1882, 1999.
	Monath, "Molecular Distinctions Between Attenuated (Vaccine) and Virulent Yellow Fever Viruses," In, Plotkin SA and Orenstein WA (eds.), <i>Vaccines</i> , 3 <sup>rd</sup> edition, Saunders (Philadelphia), pp. 815-879, 1999.

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	Monath et al., "Yellow Fever 17D as a Vector for Vaccines Against Heterologous Flaviviruses," American Society for Virology, 19 <sup>th</sup> Annual Meeting, Colorado State University, Fort Collins, Colorado, July 8-12, 2000, Abstract W17-7, p. 85.
	Monath, "Yellow Fever: an Update," <i>Lancet Infect. Dis.</i> 1:11-20, 2001.
	Monath et al., "Single Mutation in the Flavivirus Envelope Protein Hinge Region Increases Neurovirulence for Mice and Monkeys but Decreases Viscerotropism for Monkeys: Relevance to Development and Safety Testing of Live, Attenuated Vaccines," <i>J. Virology</i> 76:1932-1943, 2002.
	Morens and Halstead, "Measurement of Antibody-Dependent Infection Enhancement of Four Dengue Virus Serotypes by Monoclonal and Polyclonal Antibodies," <i>J. Gen. Virol.</i> 71(12):2909-2914, 1990.
	Pervikov, "Development of Dengue Vaccine," W.H.O. Dengue Bulletin 24, 2000.
	Rey et al., "The Envelope Glycoprotein From Tick-Borne Encephalitis Virus at 2Å Resolution," <i>Nature</i> 375:291-298, 1995.
	Rey, "Dengue Virus Envelope Glycoprotein Structure: New Insight Into Its Interactions During Viral Entry," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 100(12):6899-6901, 2003.
	Rothman, "Dengue: Defining Protective Versus Pathologic Immunity," <i>J. Clin. Invest.</i> 113(7):946-951, 2004.
	Ryman et al., "Yellow Fever Virus Envelope Protein has Two Discrete Type-Specific Neutralizing Epitopes," <i>J. Gen. Virology</i> 78:1353-1356, 1997.
	Sabchareon et al., "Safety and Immunogenicity of Tetravalent Live-Attenuated Dengue Vaccines in Thai Adult Volunteers: Role of Serotype Concentration, Ratio, and Multiple Doses," <i>Am. J. Trop. Med. Hyg.</i> 66:264-272, 2002.
	Stephenson, "Flavivirus Vaccines," <i>Vaccine</i> 6(6):471-480, 1988. Abstract only.
	Sun et al., "Vaccination of Human Volunteers with Monovalent and Tetravalent Live-Attenuated Dengue Vaccine Candidates," <i>Am. J. Trop. Med. Hyg.</i> 69(Suppl 6):24-31, 2003.
	Theiler and Smith, "The Use of Yellow Fever Virus Modified by <i>In Vitro</i> Cultivation for Human Immunization," <i>Rev. Med. Virol.</i> 10:3-16, 2000.
	Vlaycheva et al., "Yellow Fever 17D Virus: Pseudo-Revertant Suppression of Defective Virus Penetration and Spread by Mutations in Domains II and III of the E protein," <i>Virology</i> 327:41-49, 2004.
	Volk et al., "Solution Structure and Antibody Binding Studies of the Envelope Protein Domain III from the New York Strain of West Nile Virus," <i>J. Biol. Chem.</i> 279:38755-38761, 2004.
	Wang et al., "Comparison of the Genomes of the Wild-Type French Viscerotropic Strain of Yellow Fever Virus with its Vaccine Derivative French Neurotropic Vaccine," <i>J. Gen. Virology</i> 76:2749-2755, 1995.
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	Yamshchikov et al., "An Attenuated West Nile Prototype Virus is Highly Immunogenic and Protects Against the Deadly NY99 Strain: A Candidate for Live WN Vaccine Development," <i>Virology</i> , 330:304-312, 2004.
	International Search Report from WO02/102828 dated April 18, 2003.
	International Search Report from WO03/063725 dated June 25, 2003.
	International Search Report from WO03/101397 dated September 4, 2003.
	International Search Report from WO03/103571 dated December 12, 2003.
	International Search Report from WO04/045529 dated June 28, 2004.
	International Search Report from WO05/082020 dated September 30, 2005.
	International Search Report from WO06/044857 dated May 30, 2006.
	International Search Report from WO06/116182 dated July 17, 2006.
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